

## CLAIMS

What is claimed is:

1. A peripheral device for a programmable logic controller comprising:

5           an instruction table for correlatively storing instructions and  
input/output types of parameters for the instructions;

          a search/discrimination means for searching the instruction table  
for an instruction in a code in a portion of a sequence program selected as  
diversion data from an existing diversion-source sequence program, to  
10   discriminate an input/output type of a parameter for the instruction;

          a search result creating/storing means for creating and storing a  
search result table by combining an address in the code in the selected  
portion of the sequence program, with the input/output type;

          a component data creating means for creating a variable data table  
15   by replacing the input/output types stored in the search result table with  
variable names, and for creating component data by adding the  
corresponding variable names to variables and to circuit information; and

          a component data diversion means for diverting the component data  
into an arbitrary position in a designated sequence program.

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2. A peripheral device for a programmable logic controller according to claim  
1, further comprising:

          a sequence-program-component storing means for storing into a  
component storage the created component data as a sequence program  
25   component;

a sequence-program-component displaying means for displaying the sequence program components stored in the component storage;

a sequence-program-component selecting means for selecting a desired sequence program component from the sequence program components displayed by the sequence-program-component displaying means; and

a sequence-program-component diversion means for diverting the selected sequence program component into a new sequence program.

10 3. A program creating method of copying a portion of an existing sequence program and pasting the portion into a new sequence program, for a peripheral device for a programmable logic controller, the method comprising:

15 a search/discrimination step of, with an instruction table for correlatively storing instructions and input/output types of parameters for the instructions, searching the instruction table for an instruction in a code in a portion of the sequence program selected as diversion data from an existing diversion-source sequence program, to discriminate an input/output type of a parameter for the instruction;

20 a search result creating/storing step of creating and storing a search result table by combining the discriminated input/output type, with an address in the code in the selected portion of the sequence program;

a component data creating step of creating a variable data table by replacing the input/output types stored in the search result table with  
25 variable names, and for creating component data by adding the

corresponding variable names to variables and to circuit information; and

a component data diversion step of diverting the component data into an arbitrary position in a new sequence program as a diversion destination.

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4. A program creating method according to claim 3, for a peripheral device for a programmable logic controller, the method further comprising:

a sequence-program-component storing step of storing into a component storage the created component data as a sequence program component;

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a sequence-program-component displaying step of displaying the sequence program components stored in the component storage;

a sequence-program-component selecting step of selecting a desired sequence program component from the sequence program components displayed in the sequence-program-component displaying step; and

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a sequence-program-component diversion step of diverting into a new sequence program the desired sequence program component that has been selected.

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